STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
300 W. Preston Street, Suite 202, Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

Office of Preparedness & Response
Sherry Adams, R.N., C.P.M, Director
Isaac P. Ajit, M.D., M.P.H., Deputy Director

October 28, 2011

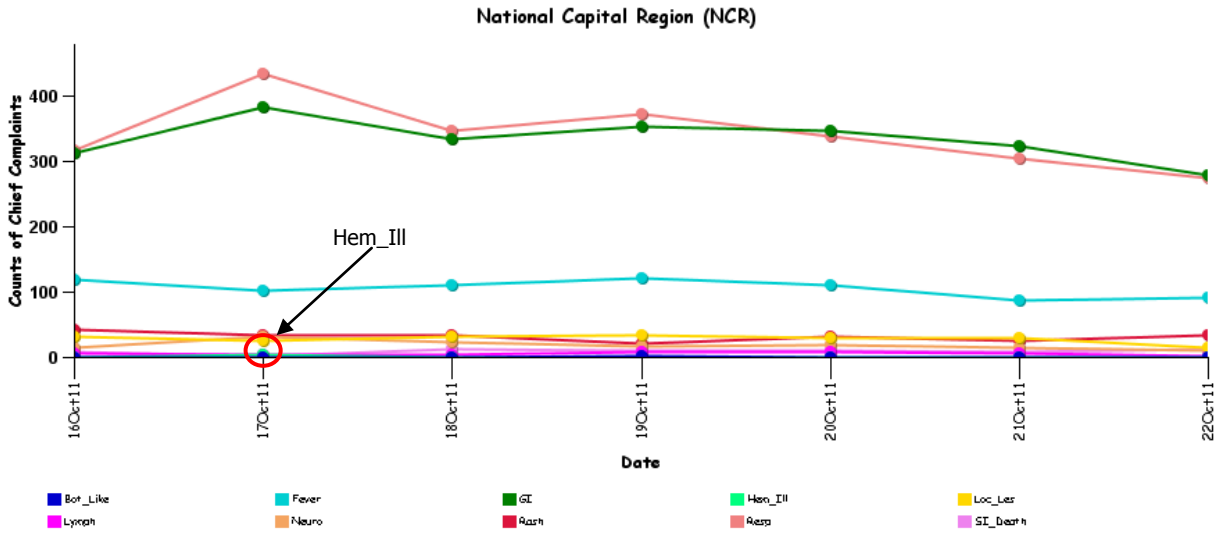
Public Health & Emergency Preparedness Bulletin: # 2011:42 Reporting for the week ending 10/22/11 (MMWR Week #42)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

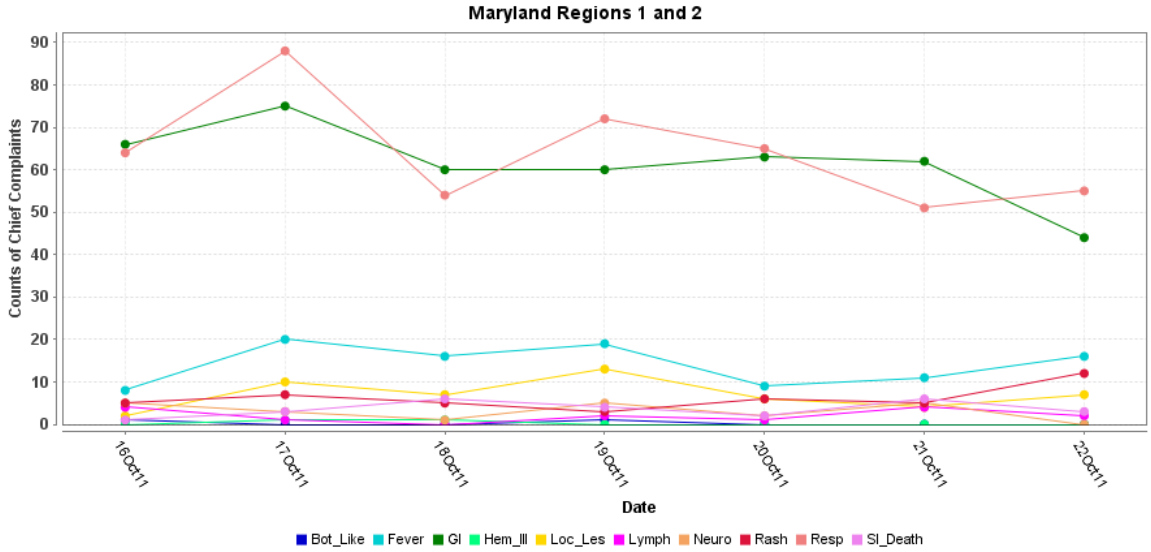
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

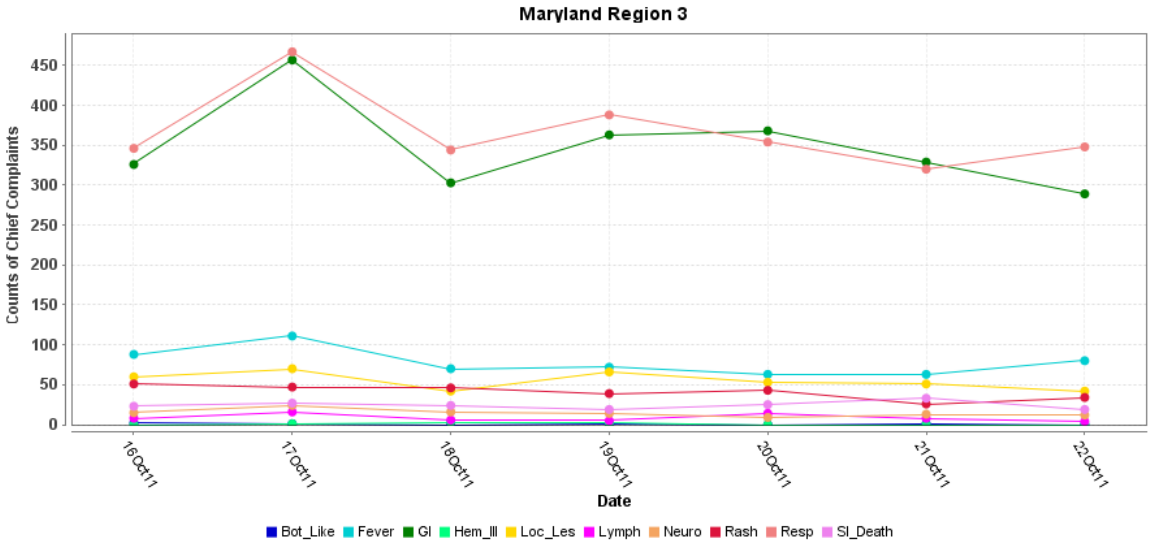


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

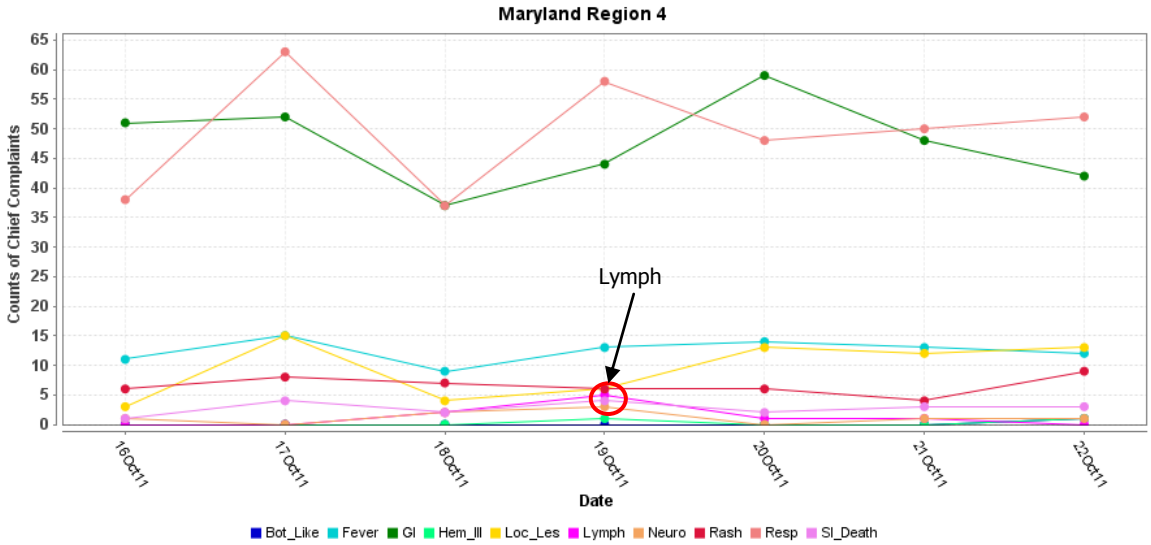
MARYLAND ESSENCE:



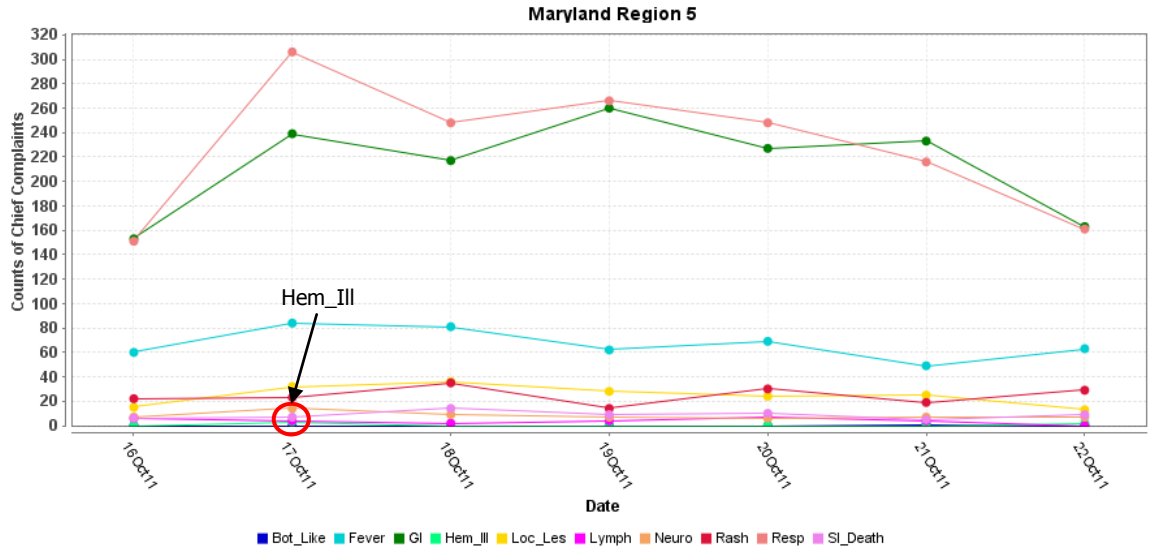
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



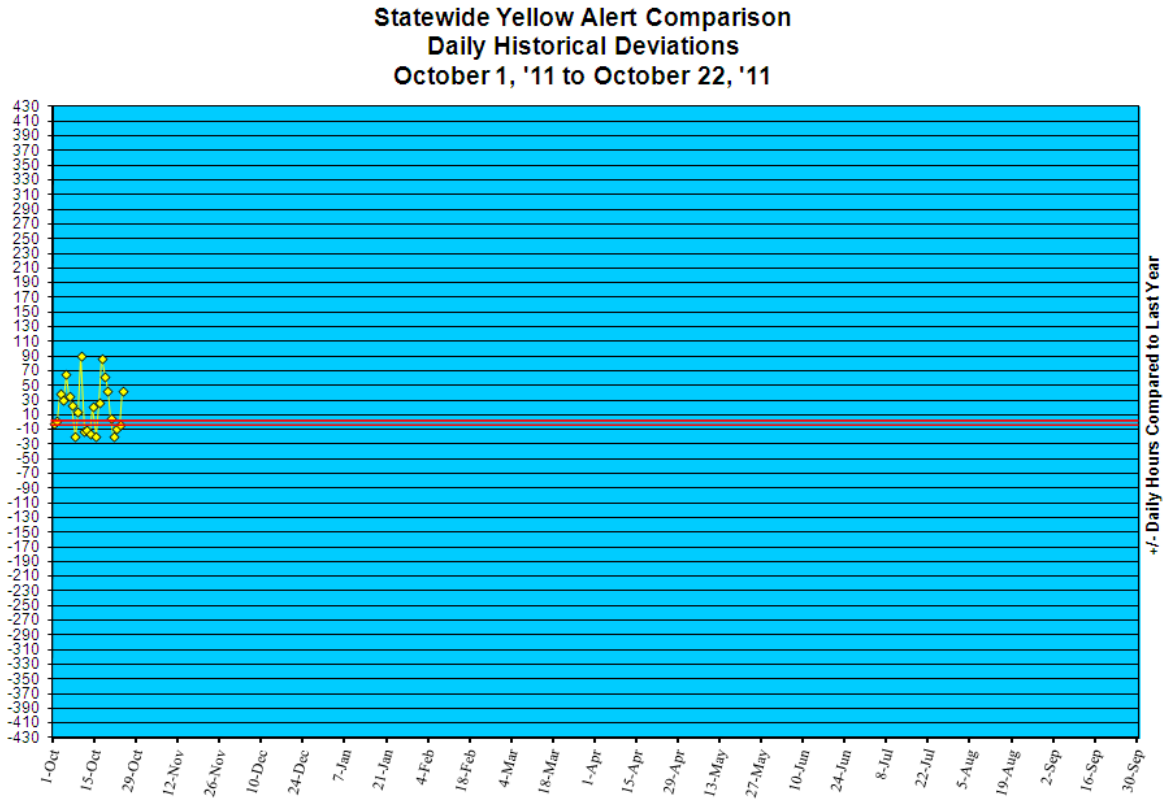
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in September 2011 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (October 15 – October 22, 2011):	23	0
Prior week (October 9 – October 15, 2011):	12	0
Week#41, 2010 (October 16 – October 23, 2010):	10	0

0 outbreaks were reported to DHMH during MMWR week 42 (October 16 – October 22, 2011).

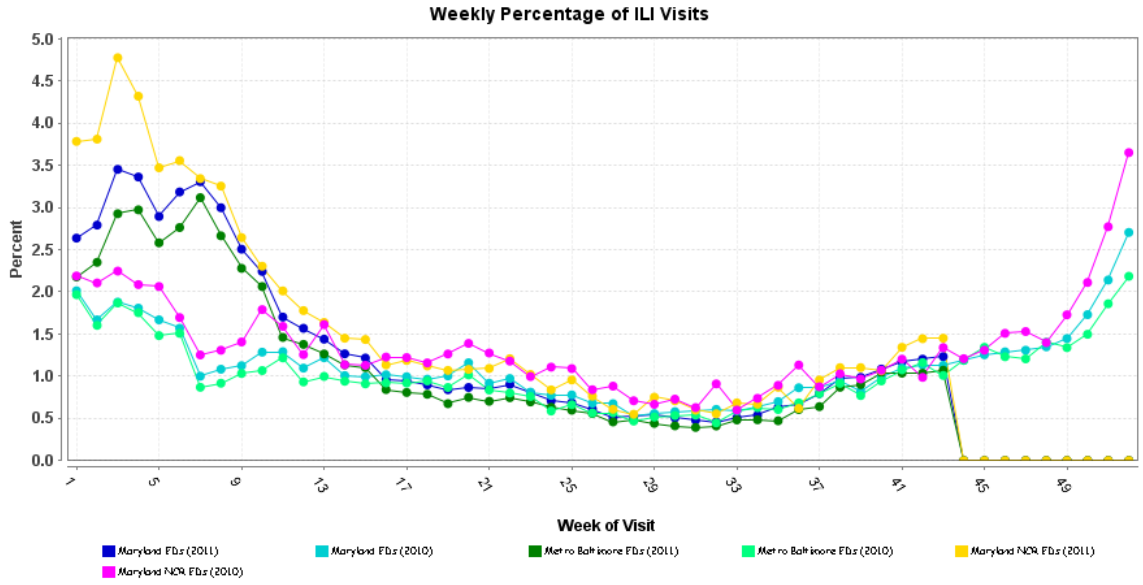
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May.

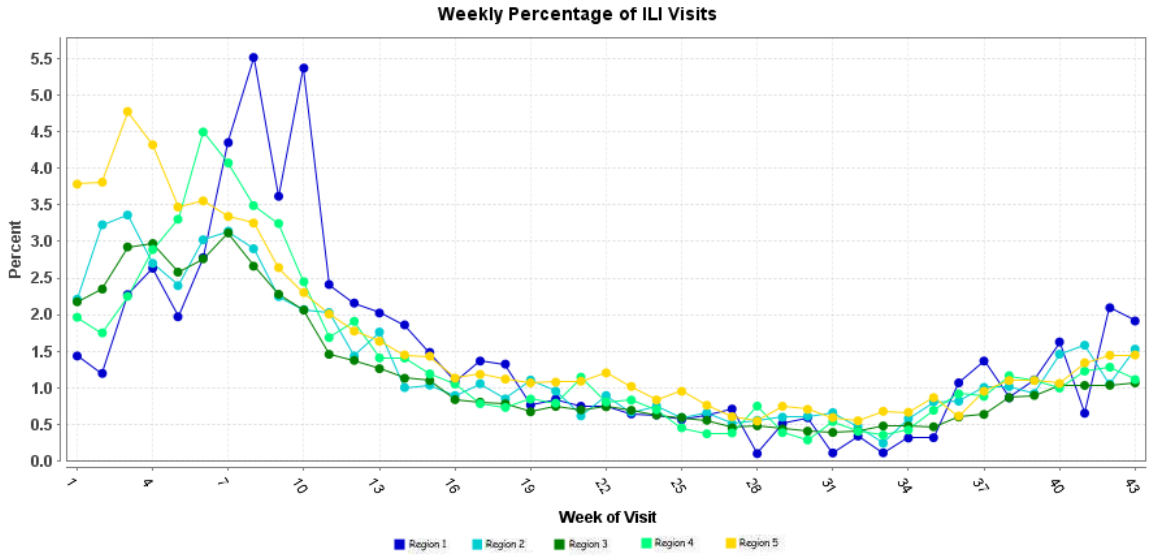
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



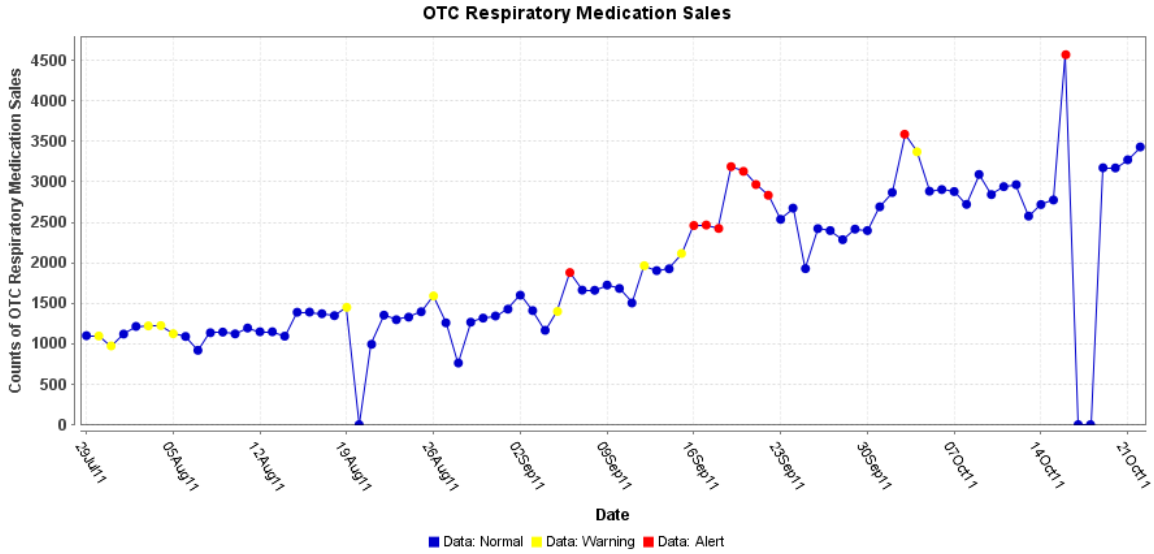
* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2011 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

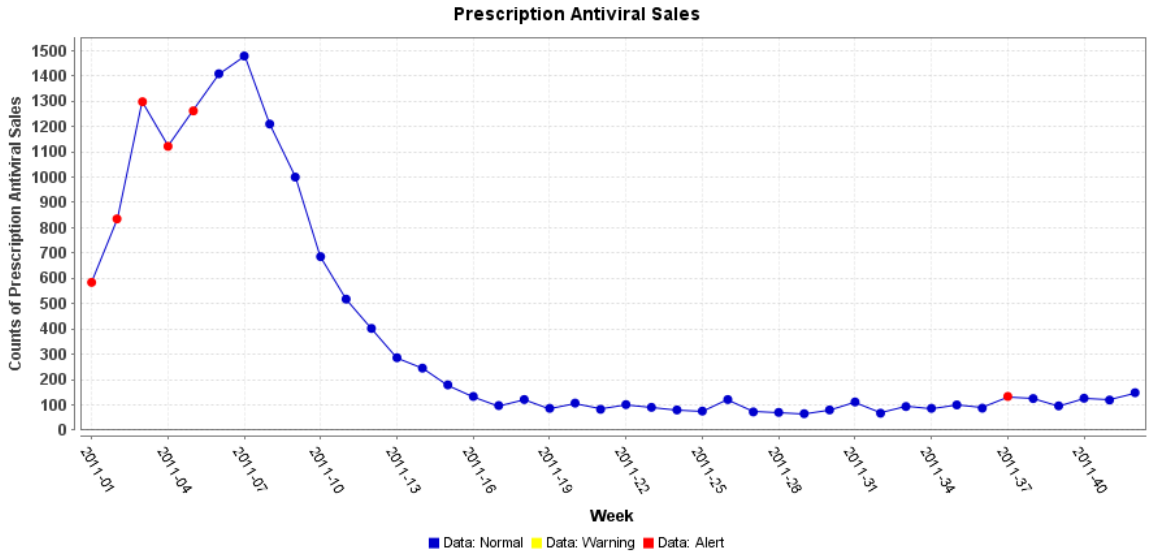
OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PRESCRIPTION ANTIVIRAL SALES:

Graph shows the weekly number of prescription antiviral sales in Maryland.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of September 16, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 564, of which 330 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

AVIAN INFLUENZA: 18 October 2011, A woman died in her house, in Jehem village, Tembuku sub-district, Bangli, Bali. Officials suspected bird flu (H5N1) infection and collected a sample from the woman. The victim is the mother whose 2 children died of H5N1 in Sanglah hospital several days ago. After that the mother developed fever and was then treated in Bangli hospital. When she was in hospital, her blood examination tested negative for H5N1. She left the hospital and died 2 days after. The victim is being treated as if she was infected by bird flu H5N1, with officials wearing bio-security clothes. Mourners are obliged to wear masks. The Health Service and Livestock Service of Bali province sprayed disinfection around victim's house, and culled surviving chickens.

NATIONAL DISEASE REPORTS

SALMONELLOSIS (MN): 19 October 2011, The Minnesota Department of Agriculture (MDA) and the Minnesota Department of Health (MDH) are investigating illnesses in at least 6 people in Minnesota that are connected with a recall of organic shell eggs due to contamination with *Salmonella Enteritidis*. The contaminated eggs were traced back by the MDA to Larry Schultz Organic Farm of Owatonna, where environmental testing confirmed the presence of *S. Enteritidis*. Larry Schultz Organic Farm is cooperating with the MDA investigation and has issued a voluntary recall of the products. Routine reportable disease monitoring by state health officials identified 6 cases of *S. Enteritidis* infection with the same DNA fingerprint. The individuals became ill between

12 Aug 2011 and 24 Sep 2011. The illnesses occurred in both children and adults, and all are residents of the 7-county metropolitan area. 3 of the cases were hospitalized but have since recovered. 5 of the 6 cases have reported eating eggs from the Larry Schultz Organic Farm purchased at grocery stores or co-ops. Eggs affected by this recall were distributed to restaurants, grocery stores, food wholesalers, and foodservice companies in Minnesota, Wisconsin, and Michigan. Eggs from Larry Schultz Organic Farm are packaged under the following brand names: Lunds & Byerly's Organic, Kowalski's Organic, and Larry Schultz Organic Farm. Eggs are packed in bulk and varying sizes of cartons (6-egg cartons, 12-egg cartons, 18-egg cartons). Full product descriptions and a list of grocery stores where these products were sold can be found at http://www.mda.state.mn.us. Cartons bearing Plant Number 0630 or a "Sell by" date are not included in this recall. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

LISTERIOSIS (USA): 19 October 2011, A nationwide listeria outbreak that has killed 25 people who ate tainted cantaloupe was probably caused by unsanitary conditions in the packing shed of the Colorado farm where the melons were grown, federal officials said on Wednesday [19 Oct 2011]. Government investigators said that workers had tramped through pools of water where listeria was likely to grow, tracking the deadly bacteria around the shed, which was operated by Jensen Farms, in Granada, Colorado. The pathogen was found on a conveyor belt for carrying cantaloupes, a melon drying area and a floor drain, among other places. "You're rolling around cantaloupe on uncleanable equipment and you're getting it wet and you're not cooling it -- it provides the perfect environment for listeria growth and spread," said James Gorny, a senior food safety adviser at the Food and Drug Administration [FDA]. The outbreak, which began in late July 2011, is the deadliest caused by foodborne disease since 1985. A total of 123 people in 26 states have fallen ill, including those who died, according to the Centers for Disease Control and Prevention. Nicholas J Parolisi Jr, a lawyer for Jensen Farms, said he could not comment on the FDA's accusations. The farm had passed a food safety audit by an outside contractor just days before the outbreak began. Eric Jensen, a member of the family that runs the farm, said in an email that the auditor had given the packing plant a score of 96 points out of 100. FDA officials did not criticize the auditor directly. But Michael R Taylor, deputy commissioner for foods, said the agency intended to establish standards for how auditors should be trained and how audits should be conducted. The food industry increasingly has come to rely on what it calls 3rd-party audits of farms or processing plants to ensure the safety of food. But the auditors are hired by the companies being inspected, and their procedures are largely unregulated. In several recent food safety lapses, the facilities involved had passed 3rd-party audits. It was not clear how listeria initially got into the packing shed, which officials described as an open-air structure having a concrete floor, a roof, and no walls. Listeria is frequently found in soil or manure, but tests of the soil on the farm did not turn up the bacteria. Officials said that a dump truck used to take culled melons [removal of any product that showed signs of physical damage, such as skin breaks or decay] to a cattle farm was parked near the processing shed and could have brought bacteria to the facility. Jensen Farms, run by Mr Jensen and his brother Ryan, had recently acquired a set of used machinery to upgrade the way it washed and dried its cantaloupes. The equipment had been used to clean potatoes and was not intended for use with cantaloupes, officials said. They said the equipment was corroded in places and built in a way that made it difficult to clean and sanitize. An area used to dry the melons included a cloth cover that could easily have harbored the bacteria, according to a person who discussed the operation with the Jensens. Officials also said that the cantaloupes had not been adequately cooled before they were placed in refrigerated storage, which could have caused condensation to form on the fruit, creating hospitable conditions for listeria. The bacteria grow well in wet or damp conditions and can also thrive in cold. Dr Gorny said that some of the conditions he described, including pools of water on the floor, had been noted during a visit in mid-September 2011 after the plant ceased operation and the equipment was dismantled. It was not clear if investigators who had visited the plant while it was still in operation saw the same unsanitary conditions. Officials said that conditions at Jensen Farms were not typical of the produce industry. "We have no reason to believe these factors are indicative of practices throughout the industry," said Sherri McGarry, a senior FDA adviser. The outbreak is likely to focus new attention on the use of auditors in the food industry. Typically farms or processors are required by their customers, like supermarket or restaurant chains, to have an auditor evaluate their food safety procedures. Jensen Farms hired an auditor called PrimusLabs, based in California, to inspect its facility. Primus gave the job to a subcontractor, Bio Food Safety, which is based in Texas. Jensen and Primus declined to provide a copy of the audit report. Robert Stovicek, the president of PrimusLabs, said his company had reviewed the audit and found no problems in how it was conducted or in the auditor's conclusions. "We thought he did a pretty good job," Mr Stovicek said. He said the auditor, James M DiIorio, has been doing audits for the company since March 2011. He said that Mr DiIorio had received 2 one-week training courses as part of his preparation and had also gone on audits with other auditors. Asked how Mr DiIorio could have given high marks to a facility that the FDA described as a breeding ground for _Listeria_, Mr Stovicek said, "There's lots of variations as to how people interpret unsanitary conditions." Mr DiIorio did not return phone calls seeking comment. Trevor V Suslow, a professor of food safety at the University of California, Davis, said auditors may give farmers, processors, and retailers a false sense of security. "There needs to be training, certification, and auditing of the auditors," he said. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents)*Non-suspect case

E. COLI (WI): 16 October 2011, A 3rd possible case of *E. coli* infection in a student at Monroe's Abe Lincoln Elementary is being investigated by the Green County Health Department, prompting recommendations that all pre-kindergarten and kindergarten students at the school be tested for *E. coli*. One of the 2 other recently confirmed cases at the school genetically matches a previous cluster of *E. coli* O157 infections in August and early September 2011, officials said. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

E. COLI VTEC NON-O157 (IRELAND): 9 October 2011, A creche [day care center] in Limerick has been asked to close by the public health department of the Health Service Executive [HSE] as a result of an outbreak of *Escherichia coli* infection. The strain has been identified as *E. coli O26*, a toxin-producing strain. Fewer than 10 children have been infected; a number of linked cases have been identified. The closure is to enable all staff and children attending the creche to be screened. The HSE said it was

satisfied that the creche was fully compliant with preschool standards. However, children from this creche will not be able to attend other child care facilities until they have been cleared of infection. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS (INDIA): 17 October 2011, Japanese encephalitis -- a form of brain fever -- has hit the state capital and its neighboring areas. At least 10-12 cases of the disease are being reported at Patna Medical College and Hospital (PMCH) daily over the past few days. Dr Nigam Prakash Narayan, a senior doctor at the pediatric ward of the hospital, said: "About 250 patients of encephalitis have been admitted to the hospital so far. Of them, around 100 are down with Japanese encephalitis [virus infection]. This is apart from high number of cases registered at the government medical college in Gaya. The mortality rate of Japanese encephalitis patients is about 20-25 per cent. Thus, the disease has taken an epidemic form in the state." Dr Narayan said: "Most of the patients coming to the hospital are from Patna, Hajipur, Muzaffarpur, and Chhapra districts. Several of them are in critical condition." With the number of suspected Japanese encephalitis cases on the rise, the PMCH authorities are finding it tough to cope with the pressure of patients. The health hub is running short of beds as well as medicines. "Many Japanese encephalitis patients are lying on the floor as beds are not available. We are also running short of required medicines. Worse, there is no special arrangements for such patients though new cases are pouring in every day," a senior officer of the hospital said. Experts said Japanese encephalitis [JE] is caused [by JE virus transmitted] by the bites of *Culex tritaeniorhynchus* mosquitoes. The symptoms of Japanese encephalitis include high fever, headache and nausea, bouts of unconsciousness or convulsions, altered sensorium or impact on sensory part of the brain, chills, confusion and agitation, rigidity of neck, lethargy, and inability to talk or feel anything. Doctors suggested people to use medicated mosquito nets and repellents to avoid getting infected. They also asked to keep rooms of children, especially infants and toddlers, spick and span. Dr Narayan said: "It is high time the state government took up some extensive programs like sprinkling of insecticides in affected areas to stop the menace immediately." Today in Gaya, 6 persons reportedly died of Japanese encephalitis [virus infection]. With this, the toll touched 68. State health department officials said measures were being taken to curb the spread of the disease. "We have identified 420 villages in Gaya where malathion is sprayed to kill mosquitoes. Also, people are being advised to keep pigs away from human habitation as they act as vectors of the disease [pigs are amplifying hosts of JE virus. Wild birds are the reservoirs and mosquitoes are the vectors.]. Some stray cases are being reported from other districts as well and we are trying our best to stop the spread of the disease. It is also important that people keep their house and surroundings clean and maintain personal hygiene," said Sanjay Kumar, the secretary of the health department. The deputy chief malaria officer SK Aman, has asked the Gaya civil surgeon to seek help of the welfare and education departments and the municipal corporations to contain the disease. Around 308 Japanese encephalitis patients have got admitted to Anugrah Narayan Magadh Medical College and Hospital till today. The 1st case was reported on 23 Aug [2011]. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey
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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

Zachary Faigen, MSPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: ZFaigen@dhmh.state.md.us

Anikah H. Salim, MPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-2074
Fax: 410-333-5000
Email: ASalim@dhmh.state.md.us